

2.—Local taxonomy and terminology for some terrestrial arthropods in five different ethnic groups of Papua New Guinea and Central Australia

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Abstract

Lists of local names of spiders and insects in five different ethnic groups of Papua New Guinea and Central Australia are presented. Additional information is given on the use of particular species. It is suggested that in the nomenclature of indigenous peoples a species is likely to get an individual name to contrast it with the more general term or to distinguish it from the term of a related "type-specimen", if it is harmful, edible, or in any other way outstanding.

Introduction

Our knowledge of the names of insects and spiders in certain non-European languages is poor. Three main reasons are thought to be responsible for this:

Firstly, insects and spiders cannot normally be identified by the field anthropologist or linguist because he has not had the training to distinguish between major arthropod taxa. Also a lack of books for the field identification of spiders and insects is more apparent than for other groups such as birds and mammals.

Secondly, insects and spiders are usually small, and in spite of their great abundance are more easily overlooked than birds, reptiles and mammals.

Thirdly, insects and spiders rarely play as important a role as, for example, larger game animals or venomous species.

The aims of this paper are therefore to place on record some of the names used for terrestrial arthropods by certain peoples, and to stimulate more systematic research along these lines. As a biologist I have had the opportunity on three recent field trips to make "on-the-spot" identifications of insects and spiders, sometimes at the generic, but more often at the family or higher taxon level. These were either collected by myself or local helpers, and shown to some knowledgeable locals. For greater details see "Material and Methods".

Of the three ethnic groups studied in Papua/New Guinea (Kiriwina, Chuave and Onabasulu) no previously published lists of names of insects and spiders appear to exist. However, thanks to the efforts of Mr. R. C. Thurman,² who compiled a similar list to that reported for Chuave

below, we can at least compare our Chuave terms with those of the neighbouring "Kinuku" dialect (Thurman 1973 in litt.).

A few names of arthropods have been collected from the Pintupi tribe of Central Australia by Hansen (1974). The Walbiri were the subject of Meggitt's book "Desert People" (1956) in which he gives a list of 28 terms for insects and spiders. This list has been compared with, and supplements, our collection.

Edible insects of the three ethnic groups studied in Papua/New Guinea have been the subject of an earlier paper by Meyer-Rochow (1973a) and the insect food of Australian Aborigines has been reviewed in some detail by Reim (1962), and briefly summarized by Meyer-Rochow (1973b). Since edible insects of Australian Aborigines and New Guineans have been dealt with in separate publications, in the compilations below no further details other than whether a species is consumed by the natives or not will be given.

Almost certainly the lists given in this paper are incomplete. Firstly, most species of insects and spiders are seasonally abundant whether tropical or not, and so a considerable number of species might not have been present during the time of our field work. Secondly, by manually collecting species of various habitats over a period of two weeks some forms will have been overlooked. Undetected and uncollected they will therefore have not been mentioned by the people questioned. Thirdly, particular species may not have been mentioned or collected because of taboos associated with them.

In a first attempt, however, to record names of insects and spiders in these languages (some of which may in fact be regarded as dying out), the manual collecting procedure can even be considered advantageous, since the common and more abundant arthropods would be found rather than a multitude of rare forms that might not even have names at all.

Materials and methods

Communication difficulties, where they arose, were usually overcome with the aid of an interpreter or by the use of signs. In cases where natives were asked to collect insects, they would normally return with large numbers of individuals belonging to one or two most common species. Furthermore they would catch those forms which were large and easy to catch. To avoid this unwanted "selection", in most cases I collected the material myself, taking care

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that I would get as many representatives of taxonomically-different groups, i.e. orders and families, as possible.

The animals were then shown to local persons regarded as knowledgeable by their companions. In the case of the Kiriwinians this was a group of five elderly men; in the Chuave it was a young man who had experienced some degree of Mission education, with the Onabasulu there were three young men in turn; in the central Australian Walbiri it was one old and one young man; in the Pintupi it was well-known 'Nose-peg', a very clever old man who has led governmental patrol-expeditions into the Gibson Desert during which previously-uncontacted Pintupi nomads were found (Lockwood 1964). While in more systematic work a larger number of persons should be consulted, the time available did not permit a more extensive survey.

Occasionally the locals were shown drawings of insects in the book 'The Insects of Australia' (CSIRO 1970), but in agreement with Waldron and Gallimore (1973) we found that these untrained people had great difficulty in recognizing line-drawings of insects—even an insect as common as the fly was not identified. The problem of picture recognition is thought to be attributed mainly to three factors: a) book figures of insects and spiders are not usually drawn to natural size, b) most of the line-drawings lack colouration and c) all figures including colour photographs are two-dimensional representations.

The replies of the Walbiri and Pintupi informants were recorded on tape, and the cassettes are now kept at the Department of Linguistics, Australian National University, Canberra. In the case of the three peoples of Papua and New Guinea the answers were written down phonetically and later transcribed phonemically with the assistance of Rev. R. Lawton¹ (Kiriwina), Mr. R. C. Thurman² (Chuave) and Dr. C. L. Voorhoeve³ (Onabasulu). The transcription used for the Walbiri material was that of Meggitt (1956), while Pintupi material, following advice by Dr D. Laycock³, was written down as the author heard it, and compared with a list which was kindly made available to the author by Mr. K. Hansen.⁴

Some of the insects and spiders were identified on the spot, others were preserved in 50% ethanol or air-dried, and taken to the Australian National University for examination. Identification to the family level, and sometimes to generic or specific grades, was normally possible.

Results

A. Kiriwina

The Kiriwinians are an anthropologically well-studied Melanesian people inhabiting the Trobriand Islands. They have been in continu-

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² See page 15.

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ous contact with Europeans (missionaries, explorers, anthropologists, Australian instructors and more recently tourists) for about 90 years. Through translations of their myths and sagas, primarily by Malinowski (1929), we know quite a lot of their vocabulary. These first compilations, which omit most insect names, will soon be updated by an English-Kiriwina dictionary by Lawton¹ and Leach (in preparation).

The names of insects and spiders reported below were collected during a stay of two weeks in May/June on the island of Kiriwina (Table 1).



Figure 1.—According to Malinowski (1929) "delousing" is the only physical contact during the day permitted between opposite sexes in Kiriwina people.

B. Chuave

The Chuave are part of the Chimbu people who live in the central Highlands of New Guinea. They were only contacted regularly from the 30s on of this century. They make considerable use of insects as human food, a habit which may be related to the high population density in the area of approximately 250/km² and the lack of larger game animals (Meyer-Rochow 1973a). Collecting of insects was carried out during June (Table 2).

Table 1
Names for arthropods in Kiriwina

English name	Scientific name	Kiriwina	Remarks
Damselflies and dragonflies	Odonata: Libellulidae, Corduliidae, Coenagrionoidea	pilibuwa	
Cockroaches	Blattodea (taxonomy of New Guinea forms inadequately worked out)	kaikorosi liwoliusa bukibwaki	big forms small forms black, stinking forms
Termites	Isoptera	uku uku kukuwa, pwakakia	species distinguished by nest or mound
Praying mantis	Mantodea: <i>Tenodera</i> sp., <i>Hierodula sternosticta</i>	tataya	eaten
Earwigs	Dermaptera: <i>Acanthocordax</i> sp.	no name	known
Cave cricket	Gryllaeridoidea: <i>Tachycines</i> sp.	bnbunaweta	
Longhorned grasshoppers	Tettigonidae: <i>Caedicia</i> sp., <i>Valanga</i> sp.	dila pwewesa	chirps, not eaten does not chirp, eaten
Shorthorned grasshoppers and locusts	Caelifera: Aeriidae	nipawa gagata	big forms, some eaten small forms, some eaten
Crickets	Grylloidea <i>Teleogryllus commodus</i> <i>Metioche</i> sp.	sigwa sigwapolu kinancita	some bush-crickets eaten form with vestigial wings
Various small green hoppers	Orthoptera	kilili	all edible "hoppers"
Mole cricket	<i>Gryllotalpa</i> sp.	si kaitukwa bogau	"The evil spirit's walking stick" (local information)
Stick insects	Phasmatodea: <i>Eurycantha horrida</i> Phasmatinae	kidoka kwapu	eaten some eaten
Lice	Phthiraptera: <i>Pediculus humanus</i>	kutu	eaten (Fig. 1)
Bed bug	<i>Cimex lectularius</i>	ginigeni	
Leaf bugs	<i>Mictis</i> sp.	pwadu kula	eaten
Water strider	Gerridae: <i>Halobates</i> sp.	no name	well known
Cicadas	Cicadidae: <i>Diceropyga</i> sp., <i>Baeturia</i> sp.	siekwapa padidi	female forms male forms
Ant lion	Neuroptera: <i>Myrmeleon</i> sp.	ginuvavalia	
Beetles: cockchafer, dung beetles, Christmas beetle	Coleoptera: Scarabaeidae	kim	general term for 'typical' beetle, some eaten as grubs
Longicorn beetle	Cerambycidae	dila	like longhorned grasshopper
Ladybird	Coccinellidae	no name	known
Weevils	Curculionidae	no name	known

English name	Scientific name	Kiriwina	Remarks
Click beetles	Elateridae	tama	cause of amusement
Jewel beetles	Buprestidae	papaku	
Firefly	Lampyridae	kwanekwane	shine brightest after thunderstorm (local information)
Fleas	Siphonaptera: <i>Pulex irritans</i>	kutu	like lice
Flies and Mosquitoes	Diptera	nigunagu	general term
Mosquito	Culicidae	nim	
Robber flies	Asilidae	dukupipila	
House flies	Muscidae and other families	mdowali, mdukovivia	
Flesh flies	Calliphoridae	nituma	come to corpse (local information)
Butterflies and moths	Lepidoptera: e.g. <i>Coscinocera hercules</i> , <i>Vindula arsinoe</i> and approx. 25 more spp.	beba	general term
Female birdwing	<i>Ornithoptera goliath</i>	bebakoya	
Male birdwing	<i>Ornithoptera goliath</i>	bebain	tied to arm alive, used as decoration and toy (personal observation)
Hawk moth	Sphingidae	polaulau	injures eyes of people coming to light at night (local information)
Caterpillar	Lepidopteran larva	motatana	
Chrysalis	Lepidopteran pupa	poula beba	egg of butterfly (local information)
Weaver ant	<i>Oecophylla smaragdina</i>	siboyeki	eaten
Winged ants	males and queens	seva	
Large black ant	<i>Camponotus</i> sp.	kaibibasia	
Small black ant	?	kasususila	
Wasps	<i>Polistes</i> ? sp. Sphecoidea?	kapiwa tobuyunsapi tobuyuyuvi	builds small nest in trees; builds large nest in trees; lives in the ground
Spiders and kin—Arachnida			
Scorpions	Scorpiones	kudukika	causes pain (local information)
Whip scorpions	Amblypygi	si kaukwa bogau	
Harvestmen	Opiliones	no name	if around, water is poisonous (local information)
Orb web spiders	Araneidae: e.g. <i>Nephila</i> sp.	kapari	
Jumping spider	Salticidae	kapari	
Crab spider	Thomisidae	kapari	
Sheet—or tangled web spiders	various families	pwada kola	
red mite	Acari: <i>Thrombidium</i> sp.	uweilato	

English name	Scientific name	Kiriwina	Remarks
Other terrestrial arthropods			
Millipede	Diplopoda	mtakwaibwagina	general term
big form	<i>Orthomorpha</i> sp.	monita	both considered dangerous by locals
small form	<i>Trigoniulus</i> ? sp.	monitakai	
Black centipede	Lithobiidae	waikapula	
Red scolopender	Scolopendridae	wai or wayi	
Earth runner	<i>Geophilus</i> ? sp.	msubili	
?	<i>Scutigera</i> ? sp.	no name	known



Figure 2.—Many individuals of the Tenebrionid beetle *Lomapteria yorkiana*, made into a decorative band, are used by New Guinea Highlanders from the Wahgi Valley during a pig-exchange ceremony.

C. Onabasulu

Until recently the Onabasulu, inhabiting the area north of Mt. Bosavi in the Southern Highlands, were cannibals. The first census of the people was made in 1966, resulting in a figure of about 200 individuals and a very low population density of 12/km² (Ernst¹, personal communication). Since then contacts to our kind of civilization have been restricted to occasional

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bush patrols by an Australian officer, a stay of one and a half years by the American anthropologist T. Ernst, a two-week visit in July 1972 by Ernst and myself, and to the influence of the Mt. Bosavi missionary. The latter, however, lies in the territory of the Kaluli, some 30 km away. Results are given in Table 3.

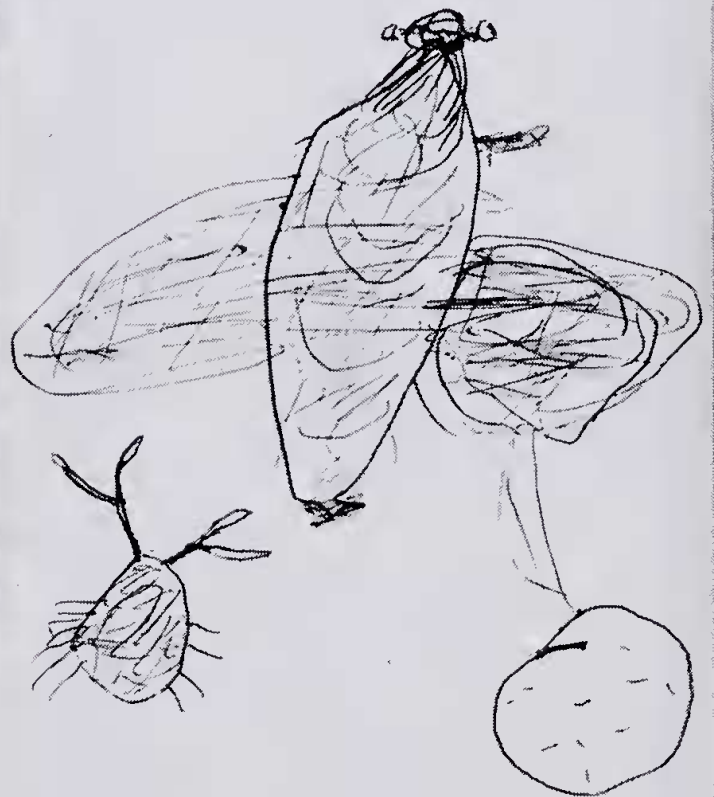


Figure 3.—This ballpoint-drawing of a butterfly and its pupa was prepared by an approximately 25 year old Onabasulu man, whose experience of using pencil and paper was virtually nil. More drawings of this and other artists (Onabasulu cannibals) have been published in Meyer-Rochow (1973 a,c).

Table 2
Names for arthropods in Chuave

Insects—Hexapoda				
English name	Scientific name	Chuave	Kinuku dialect ¹ (from Thurman)	Remarks
Damselflies and dragonflies	Odonata: Anisoptera, Zygoptera	mégawa bógawa	moiyokora (mepo gapo = dog)	
Cockroaches	Blattodea	gunago		
Termites	Isoptera	gomuna	homina	
Praying mantis	Mantodea: <i>Hierodula sternosticta</i>	keikabu	kei kapu	eaten
Earwigs	Dermaptera: <i>Chelisoches morio</i>	kopa kabu	kopa kapu	
Tree- and cave crickets	Rhaphidiphoridae: <i>Tachycines</i> sp.	mógulum pediporu	mongurom fekiporu	means a bent back (local information)
Longhorned grasshoppers	Tettigonidae	weriwawa	sirikine	eaten
Shorthorned grasshoppers and locusts	Acrididae, e.g. <i>Valanga</i> sp.	giba	siname	eaten
Crickets	Grylloidea: <i>Teleogryllus commodus</i>	keko	ekera	caten
Mole cricket	<i>Gryllotalpa</i> sp.	wiwi	kuoko	eaten
Stiek insect	Phasmatodea: <i>Eurycantha horrida</i>	kumatóru komatóru	?	
Bugs, leaf bugs	Hemiptera: <i>Mictis</i> sp.	ga(d)raniba	garan ipa	eaten, spray poison in human eyes (local information)
Lice	Phthiraptera	numan	numan	
Water strider	Gerridae	nurisinesine	?	
Cieadas	Cicadidae	giuoro	gioro	eaten
Beetles Ground beetles	Colcoptera: Carabidae	gancfarma	?	(Fig. 2)
Sugar beetle	Passalidae	gomuna	gomina	like termites, live in rotten wood, eaten as grub
Rhinoceros beetle	Scarabaeidae: <i>Xylotrupes gideon</i> <i>Oryctes</i> sp.	wawe	wawe gomina	grub eaten
Stag beetles	Lucanidae	gomuna	gomina	grub probably eaten
Longicorn beetles	Cerambycidae	emeiba	emei ipa	caten
Weevils	Curculionidae	emeiba	emei ipa	eaten
Firefly	Lampyridae	derégure	dere gouro	means "to light and finish" (Thurman, in litt.)
Wood-boring grubs	mostly coleopteran larvae	omun	omon	some eaten

¹ Thurman (1973) obtained a Kinuku-dialect list by reading out those terms which I had previously recorded and written down from a Chuave informant. That the people he consulted in fact understood almost all the terms which he as a European read to them, proves the validity of the original Chuave list.

English name	Scientific name	Chuave	Kinuku dialect	Remarks
Fleas	Siphonaptera: <i>Pulex irritans</i>	toridi	toreri	
Crane flies and mosquitoes	Tipulidae and Culicomorpha	kunkabu	denkapu	
Small flies	Diptera	oremei	oremei	
Big flies	Diptera	oremei garomabu	oremei garumapu	
Butterflies and moths	Lepidoptera	kono kono	topa topa	general term
Chrysalis	pupa	kono nu	topa topa murom	means "egg of butterfly" (local information)
Caterpillars	Lepidopteran larvae	monsúmuna	?	social caterpillars in a sort of nest. Eaten
Taro-leaf Caterpillar	?	kímina mégoma	kimina mekoma	big caterpillar
Green/yellow/white caterpillar	?	kímina kánkabu	kankapu gima gima	small caterpillar (local description)
Insect (butterfly?) eggs		duam	?	
Ulysses butterfly	<i>Papilio ulysses</i>	omula gáulum	omura topa topa	
Ants	Formicoidea	sin	sin	some eaten
Ant eggs	ant pupae	sin morena	sin morena	some eaten
Tree wasp	<i>Polistes?</i> sp.	oremei gar(u)mábu	oremei garimapo	
Honey bee	Apidae	dum	ipa dum	
Bumble bee	Bombinae	oremei mam	den mam	mam means mother (local information)
Spiders and kin—Arachnida				
Scorpion and whip scorpions	Scorpiones, Uropygi	wiwi	ekera	like mole cricket
Harvestmen, Huntsman- and crab spiders	Opiliones, Isopodidae, Thomisidae	maimadonamu	maima donamu	
Wolf spiders	Lycosidae	gourake	gourake	
Sheet or tangled web spiders	Various different families	gimabu	gimapo	
Orb web spiders	Araneidae, e.g. <i>Nephila</i> sp.	gingam	?	
Stick spiders	e.g. Tenthredinidae	emeiba	emei ipa	
Jumping spiders	Salticidae	torídi	toreri	
Other terrestrial arthropods				
Walking worm	Peripatidae	onoba múgan	onopa mukan	identified from book, eaten (local information)
Millipede	Diplopoda	onoba múgan	onopa mukan	
Centipede	Chilopoda	gainobari	gainopari	

Table 3

Names for arthropods in Onobasulu

Insects—Hexapoda

English name	Scientific name	Onobasulu	Remarks
Silverfish	Lepismatidae	haluago	
Damselflies and dragonflies	Odonata: Anisoptera Zygoptera	wodien	larva considered small crayfish, eaten
Cockroaches, field cockroach, house cockroach	Blattodea	afia dofene horole	
Praying mantis	Mantodea: <i>Hierodula sternosticta</i>	hayabelu	
Egg case of mantis	Ootheca	isyo	
Earwigs	Dermaptera	maidagana	like scorpion
Cave- and tree- crickets	Rhaphidiphoridae: <i>Tachycines</i> sp.	gawobodo	
Longhorned grasshoppers	Tettigonidae: <i>Valanga</i> sp.	sak(g)é	eaten
Shorthorned grass- hoppers and locusts	Aerididae	maifo	
Cricket	Grylloidea: <i>Teleogryllus</i> <i>commodus</i> <i>Metioche</i> sp.	gúfu shuni	
Mole cricket	<i>Gryllotalpa</i> sp.	gúfu	like 'house cricket'
Stick insects	Phasmatodea	fifurebio	
Leaf bugs	Hemiptera: Coreidae, <i>Mictis</i> sp.	gáyamu	
Mud bugs	Ochteridae	gofupa	
Leaf hoppers	Cercopoidea, Cyeadelloidea	hakiago	
Water strider	Gerridae	sasyou	like some water spiders
Cicadas	Cicadidae	a(r)len, ayauwe	two different forms
Ant lion	Neuroptera: larval <i>Myrmeleon</i> sp.	totoróni	compare with Chuave term "toridi"
Beetles	Coleoptera	segema	general name for 'typical' beetle
Ground beetles	Carabidae	kofaba	
Cockchafers, dung and Xmas beetles	Scarabaeidae	u(k)gabili	
Longicorn beetles	Cerambycidae	gitawo	
Click beetles	Elateridae	udugunu	cause for amusement
Firefly	Lampyridae	samin	
Sago palm beetle	Cureulionidae: <i>Rhynchophorus bilineatus</i>	yagi	eaten

English name	Scientific name	Onabasulu	Remarks
'Musical' weevil	<i>Rhynchophorus ferrugineus</i>	húgu	eaten (Fig. 4)
Hardwood borers	larval beetles of various families	waba	grubs are classified according to host tree
Fleas	Siphonaptera: <i>Pulex</i> sp.	kulubeno	
Mosquitoes	Nematocera	ẽn(r)o	
Crane flies	Tipulidae	godien	may be same name as dragon/damselfly
Flies	Brachycera, various families	fofan(e)	
Butterflies and moths	Lepidoptera	áulaba	general term (Fig. 3)
Ulysses butterfly	<i>Papilio ulysses</i>	hagág(k)u	
Chrysalis and caterpillar	Pupae and larvae	kẽgab(i)	some eaten
Medium size flying insects	Various orders	búnye	general term
Sawflies	Symphyta	kiwon	
Honey bee	Apidae	norunai, yátu	unidentified form
Wasp	<i>Polistes?</i> sp.	weni	also used as a "given name" by locals
Various ants	Formicoidea	wamurúgu, wariosapule humaiye	collected ant material was lost
Weaver ant	<i>Oecophylla? smaragdina</i>	yési	eaten
Bull ant	Myrmeciinae	ebene giligelelo	known to sting painfully
Spiders and kin—Arachnida			
Scorpion, whip-scorpions	Scorpiones, Uropygi	maidagana	handled with care
Harvestman	Opiliones	áube	
Orb web spiders	Araneidae <i>Gasteracantha</i> sp.	samóro sáubwa	
Wolf spiders	Lycosidae	hada	
Water spiders	Agelenidae, Pisauridae?	sasyou	like water strider
Jumping spider, Huntsman spiders	Salticidae Isopodidae	sáubwa	
Stick spiders	e.g. Tetragnathidae	saro	
Others			
Centipede	Chilopoda	sasákenu	
Earthworm	Lumbricidae	tabaya	every animal living in the earth causes fright
Leeches	Hirudinidae	hibi	



Figure 4.—Onabasulu man using the buzzing weevil *Rhynchophorus ferrugineus* as a “musical instrument”, and his mouth cavity as a resonance chamber.

D. Walbiri

The Australian Aboriginal people of the Walbiri tribe, who led the semi-traditional life of a hunter-gatherer society in the country north of the Gibson Desert, were known to early settlers and prospectors around the turn of the century. However, contacts were largely



Figure 5.—Walbiri people, delousing each other in front of their huts.



Figure 6.—Walbiri and Pintupi people praise honey-pot ants as delicacies.

limited to visits to pastoral stations until the end of World War II, when Yuendumu, the chief settlement in their reservation, was founded. An account of their traditional way of life as well as lists of plant and animal names is given by Meggitt (1962). Our investigations were carried out during July (Table 4).

E. Pintupi

The Pintupi were one of the last groups of Australian Aborigines contacted by Europeans and it is claimed that the last Pintupi to have given up their semi-nomadic life in the Gibson Desert did so only 5 or 6 years ago (Gould 1970; Hummerston and Dann 1971). Our investigations were carried out during August (Table 5).

Discussion

Papua and New Guinea

The three languages Kiriwina, Chuave and Onabasulu have no common terms for insects and spiders. There is no doubt that the three languages are distinct from each other—two (Chuave and Onabasulu) belonging to only very remotely related linguistic families (Wurm, personal communication), and one (Kiriwina) being completely unrelated. Therefore the phonetic similarity between the Onabasulu “feleli” for edible sago palm grub and the Kiriwinian “kiliki” for edible grasshoppers and crickets is almost certainly coincidence.

Walbiri and Pintupi

Walbiri and Pintupi are considered different but closely related languages, and not just dialects. According to Wurm (1971) Pintupi and Walbiri together with Loritja and Pitjantjarra belong to the South-West group of the Pama Nyungan Phylic language family. These linguistic findings are in agreement with genetical analyses based on blood group studies, serological and enzymatical investigations in various Aboriginal tribes of Central Australia

Table 4
Names for arthropods in Walbiri

Insecta—Hexapoda

English name	Scientific name	Walbiri	Meggitt 1962	Remarks
Damselflies and dragonflies	Odonata: Anisoptera, Zygoptera	minduwárara		
Cockroaches	Blattodea	mingindjiri		small forms are considered babies of large species
Mayflies	Ephemeroptera: Leptophlebiidae	(j)imangi		
Termites	Isoptera	máloru		
White ant winged form	<i>Eutermes</i> sp.? <i>Eutermes</i> sp.?		jarinju bandjidi	
Praying mantis	<i>Orthodera</i> sp. (adult) (juvenile)	ieldjildju ninga	julduldju	
Earwigs	Dermaptera	tildigá		
Crickets	<i>Teleogryllus commodus</i>	djábalarí djabalarí		rarely eaten
Mole cricket	<i>Gryllotalpa</i> sp.		lirinba	
Bush cricket	<i>Oecanthus</i> sp.	tindílga		
Grasshoppers, locusts	Acridoidea	tindílga	djindilga	occasionally eaten
Stick insects	Phasmatidae <i>Extatosoma</i> sp.	ninga ieldjildju	njinga	
Leaf bugs and other bugs	Hemiptera, e.g. <i>Mictis</i> sp.	brilji brilji		considered a young beetle
Cicadas	Cicadidae		lirinba	occasionally eaten
White aphid	Aphididae	múlulu		
Scale insect	Coccoidea	mandá		some forms eaten
Manna	Psyllid lerp		jiljalbu	eaten
Plant gall	Various families, if not orders	pilburi		some occasionally eaten
Lace wings	Neuroptera: Berothidae	(j)imangi		like other insects that come to light at night
Beetles	Coleoptera, e.g. <i>Blockburnium truncatum</i>	brilji brilji	birailji- birailji	general term
Bark beetle	<i>Sclerorhinus convexus</i>	mándala- ilbrum		
Ladybird, leaf beetles	Coccinellidae, Chrysomelidae	brilji brilji		at first "idilba" given for ladybird but then changed
Water beetles	<i>Eretes sticticus</i>	tjiri		
Large ground beetle	<i>Calsoma schaperi</i>	péndegana		
Scarab beetle	<i>Euryscaphus</i> sp.	ni(e)di ni(e)di		caten

English name	Scientific name	Walbiri	Meggitt 1962	Remarks
Longicorn grub	Larval Cerambycidae		mijamija	eaten
Weevils, lice	Cureulionidae, Phthiraptera		lotu	occasionally eaten (Fig. 5)
Mosquitoes	Nematocera	kjuinjuini	giwinjiwinji	
Flies	Brahycera	ji(u)máangi	jimangi	
March flies	Tabanidae		judulu	
Butterflies and moths	Lepidoptera	binda binda	binda binda	general term
Caterpillar	Larval Lepidoptera	waiburi, wai(o)upi	ladjul	some eaten
Witchetty grub	Cossidae larvae?	málguri	ngalgari	eaten, lives in roots of <i>Acacia kempeana</i> . Collected by girls (pers. obs.).
Caddis caterpillar	Psychidae	álargu		
Ants	Formicoidea, e.g. <i>Bothroponera</i> sp. <i>Polyrhachis</i> sp.	bíngi	bingi	
Honeypot ant	<i>Camponotus inflatus</i>	ing(u)rani		eaten. Collected by girls under Mulga scrub (pers. obs.)
Honey ant	<i>Melophorus</i> spp.		jirambi, jagula	eaten
Small black ant	<i>Melophorus</i> sp.	nama		
Small shiny ant	<i>Camponotus</i> sp.	gádili gadili		
Winged ants	Males and queens	á(r)ldjimba		
Bull ant	Myrmecinae	kalda kalda	gadili gadili	
Native honey bee	<i>Trigona</i> sp.	djolala		eaten, collected by men, who smell and listen at possible "honey trees". Examine webs of spiders to find traces of bees (pers. obs.)
Wild bee	<i>Trigona</i> sp.		munagi	
Wasps hornet	<i>Polistes</i> sp.	kalda kalda	mururururu	like bull ant
Spiders and kin—Arachnida				
Scorpion	Scorpiones	ganda ganda	garangara	
Most spiders	Araneae, various families	(e)inargi	jinargi	including red back spiders
Trapdoor spider	<i>Arbanitis</i> sp.	mambúr(u)mba	mamuburnba	
Social spider	<i>Phryganoporus</i> = (<i>Ixeuticus</i>) sp.	málguridjin- bílba		
Other terrestrial arthropods				
Centipedes	Chilopoda	jukungáli	jirindji	
Wood lice	Armadillidiidae	iodinba		

Names for arthropods in Pintupi

Insecta—Hexapoda

English name	Scientific name	Pintupi (from tape material)	Pintupi (from Hansen, 1974)	Remarks
Damselflies and dragonflies	Odonata: Anisoptera, Zygoptera	wírukuriburi	?	
Cockroaches	Blattodea: <i>Polyzosteria viridissima</i> , <i>Calolampra</i> sp.	kúmpukari nálbidjara	kumputjitjipa ?	recognized from colour plate
Termites	Isoptera	lóngurlma	lungkunpa	eaten
Praying mantis	Mantodea: <i>Orthodera</i> sp.	múndikuero-(pu)	?	considered poisonous
Grasshoppers and locusts	Acridoidea	djíndilga	tjintilyka	occasionally eaten
Cricket?	Grylloidea?	kué(r)dji kue(r)dji	?	
Bush cricket	<i>Oecanthus</i> sp.	dérkowara	?	
Brown bug	Pentatomidae	énargi	?	
Leaf hopper	Cicadelloidea	júgri jugri	?	some eaten
Stink bug	<i>Mictis</i> sp.	p(l)índilga	?	
Stick bug	<i>Leptocorisa?</i> sp.	wáldoru	?	
Typical leaf bug	Hemiptera: various families, e.g. Lygacidae, Reduviidae, Pentatomidae	pátana	?	some eaten
Cicada	Cicadidae		tjirrirri	
Stick insect	Phasmatodea	múndikueropu	?	
Lice	Phthiraptera		pilu	
Lacewings and other nocturnal insects	Neuroptera, also Ephemeroptera, Plecoptera, some Hymenoptera	ki(u)wini	?	general term for insects that come to the light at night
Big Lacewings	Neuroptera	wírukuriburi	?	some myths attached to species
Beetles	Colcoptera: Staphylinidae, Scarabaeidae, Tenebrionidae, etc.	nídi nídi	nirrinirri	general term, some adults and some grubs regularly eaten, some species only to be called by particular people (local information)
Ground beetles, large water beetle	Carabidae: <i>Calosoma schaperi</i>	pétidjalili	?	
Water beetle	<i>Eretes sticticus</i>	náng(m)i	?	

English name	Scientific name	Pintupi (from tape material)	Pintupi (from Hansen, 1974)	Remarks
Desert beetle	<i>Sarogus clathratus</i>	nárabai	muputati	
Bark beetle	<i>Sclerorhinus convexus</i>	níripur(l)ka	?	walks and drops dead (local information)
Weevil	<i>Eurhamphus?</i> sp.	búru buru	?	
Ladybird	Coccinellidae	kádilka	katilyka	
Flea	Siphonaptera	kítu	tjitu	presumably eaten
Flies	Diptera	moong	muungu	
Mosquito	Nematocera	ki(u)wini	kiwinyi	
Butterflies and moths	Lepidoptera	bínd(t)a bind(t)a	pintapinta	general term
Caterpillar	Larval Lepidoptera	enomara	yanumarra	
Moth	Lymantridae	máku	nyalpitjarra	like witchetty grub (compare "Remarks" for Walbiri term)
Moth eggs	Lymantridae	mál(b)puru	?	
Witchetty grub	Stem-boring moth larvae	máku	maku	
Bull ant	Myrmeciniac	káldoga	kaltuka	stings painfully
Small black ant	<i>Melophorus</i> sp.	wálga walga	minga	
Large black ant	<i>Camponotus nigriceps</i>	kátapulka	minga	
Winged ants	males and queens	klotap(u)	mukura	
Honey-pot ant	<i>Camponotus inflatus</i>	ngári	ngari	eaten (compare "Remarks" for Walbiri term and Fig. 6)
Native honeybee	<i>Trigona</i> sp.	djórata	tjurratja = delicacy	
Wasp	Sphecidae	mópotari	yilyiilpa	
Others				
Scorpion	Scorpiones	káuparka	kanparrka	
Spider	Various families of Araneae	wálga	wanka	including red-back spider "little bit poisonous" (local information)
Wood louse	Armadillidiidae	kinara(u)	?	

(Kirk, Sanghri and Balakrishnan 1972). There are some terms in our material that are common to both languages. The shared vocabulary either has the same meaning in both ethnic groups e.g. "ni(e)di ni(e)di" for scarabaeid beetle (including Australian Christmas beetle, cockchafer, dung beetles, etc.), or the same term describes different species in the two languages, e.g. "enargi", which in Walbiri means web-spider but in Pintupi depicts a little brown pentatomid bug. The phenomenon that

the same word is used for different things in different but related languages is not extraordinary; for instance, "shellfish" in English means a crustacean or a mollusc, while in German the homophonous term describes a cod-fish.

In other cases two words for the same animal differ only slightly, e.g. "kalda kalda" for bull ant in Walbiri and "kaldoga" in Pintupi; or "djolala" for stingless native honey-bee in Walbiri and "djorata" in Pintupi.

By comparing some of the more similar words in Walbiri and Pintupi—e.g. “ingurani” for honeypot ant in Walbiri and “ngari” in Pintupi; or “kalda kalda” for bull ant in Walbiri and “kaldoga” in Pintupi—a tendency to shorten the Walbiri term appears to exist in the Pintupi language. Also, while in Walbiri at least a few terms have no stress on the first syllable—e.g. “mingindjiri” (cockroach) or “manda” (scale insect)—the accentuation of Pintupi words was found to lie exclusively on the first syllable, even if the words were long, e.g. “wirukuriburi” (dragonflies) or “kátapulka” (large black ant). However no firm conclusions can be drawn from this observation, because of the small number of terms that could be compared.

Nomenclature

The way indigenous people group some insects and spiders is interesting and worth mentioning, though due to the relatively small number of terms collected, any conclusions must be regarded as tentative. For further studies on lexicographical treatment of folk taxonomies, see Conklin (1969).

As was pointed out earlier in this paper, some species of insects could have mythological associations, but since the locals were reluctant to give any information dealing with these forms, they were not investigated here. However, for the majority of arthropods one can conclude that species that are either harmful (i.e. sting, bite, smell, etc.) or beneficial (provide food and raw material, used for decoration, etc.) usually have distinct and specific names. Other insects, although sometimes comprising hundreds of species, are given just one general name if they do not have distinguishing characters other than those used by taxonomists. For example, the little nocturnal creatures that fly to the light at night (certain Lepidoptera, Neuroptera, Trichoptera, Coleoptera, Diptera etc.) are simply called “ki(u)wini” in Pintupi or “jimangi” in Walbiri; almost all butterflies and moths are called “beba” in Kiriwina.

Sometimes similarities in the behaviour of insects cause the natives to use one and the same word for two completely different creatures, e.g. in Chuave “toridi” means both flea and jumping spider (both leap), and in Walbiri “kalda-kalda” means both bull ant and wasp (both sting painfully).

In a number of cases female and male forms of the same species have different names, particularly if they look or behave differently, e.g. the Kiriwina terms “padidi” for male and “siekwapa” for female cicadas. It was found that in Kiriwina and Walbiri eggs, larvae and other immature forms belonging to the same species could have quite different names, particularly if they were in some way of importance to the people. This observation is reminiscent of reports on the very diverse vocabulary used by arctic or mountainous peoples to describe “snow” and “ice” (Basso 1972).

Very often the natives have one general name corresponding to our term “insect”, e.g. “bunje” in Onabasulu for all smaller flying insects, and then have a number of names for particular species within this group, using the distinguishing characters mentioned above. “Bingi” in Walbiri for example means “ant”, but “jirambi” (*Melophorus* honey ant: Meggitt 1962), “gadili gadili”, “nama” (2 different ant species), “kalda kalda” (bull ant) and “ingurani” (dark honeypot ant) are more specific terms.

These specific names may be quite different both from each other and from the more general term as was demonstrated for various ants in Walbiri, but they may also consist of added or exchanged parts of the general term. For instance, in Chuave “oremei” means small fly, but “oremei garumabu” means big fly and “oremei mam” is bumble bee. In Kiriwina “beba” is the term for butterflies and moths, “bebakoya” is the word for the female birdwing butterfly, “bebaim” that of the male, and “poula beba” that of the chrysalis. In the same language “tabuyusapi” means tree wasp and “tabuyuyuvi” ground wasp. The combination of one term with several other endings to describe a number of different species is probably a widely-used practice (Berlin 1972) and has also been reported for Mt. Hagen Highlanders (Strathern 1969).

It hardly need be emphasized that we are far from understanding native nomenclature, but to assume that these people have specific names for each and every insect which they find in their environment seems almost certainly wrong. The situation may be remotely similar to that of European peasants in the Middle Ages, who were unquestionably in much closer contact with Nature and her creatures than we are now, but who, very often, did not even know trivial things like numbers of legs in spiders and insects. The Natural History books of that time accurately reflect the state of contemporary knowledge of insects and spiders.

In conclusion we can say that the classification of insects and spiders based on their phylogenetic relationship to others is a relatively new concept, which has virtually developed into a scientist’s language. Speculations about the developmental background of ethno-botanical nomenclature have been presented by Berlin (1972), and similar mechanisms may be at work in ethnozoological nomenclature. In ethno-entomological terminology it appears clear that what the majority of people, Europeans and non-Europeans alike, are concerned with are the questions: Is it a harmful insect or spider? Is it a crop pest, a parasite or an edible form? If so, that species is likely to be given an individual name to distinguish it from the term used to describe a characteristic and similar form, or from the more general word applied to the group to which it belongs. Other issues, like mythological associations, could well be relevant, but were not investigated here.

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